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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,560	12/22/2000	Sergio Zambelli	34014/GM/ch	8940
7590 08/30/2004				
MODIANO & ASSOCIATI Via Meravigli, 16 MILANO, 20123 ITALY			EXAMINER YIP, WINNIE S	
			ART UNIT 3637	PAPER NUMBER

DATE MAILED: 08/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,560

Applicant(s)

ZAMBELLI ET AL.

Examiner

Winnie Yip

Art Unit

3637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 1003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-50,52-64 and 66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-50,52-64 and 66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to applicant's amendment filed on July 7, 2003.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The reply filed on July 7, 2003 has been entered. However, under the section of "Amendment to the Claims" (page 4), the language "Claims 20-38 (cancelled)" should read "Claims 20-37 (cancelled)" since claim 38 is still pending in the application.

The indicated allowability of claims 51 and 56 are withdrawn in view of the newly discovered references. Rejections based on the newly cited references follow.

Claim Objections

1. Claims 38 and 56 are objected to because of the following informalities:

Regard to claims 38 and 56, the symbol " **-shade**" fails to properly indicate what is the shape of the profiles. It is not clear whether applicant wants to claim a plurality of profiles being connected together to provide a reinforcement having the " **-shade**" shape, or each profile has a " **-shade**". Appropriate correction is required.

Claim Rejections - 35 USC § 102/103

2. Claims 38, 40-41, 43-45, 47-48, 50, 52-57, 59, 61-62, 64, and 66, as better understood, are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over European Patent No. 381,000.

EP reference is considered to teach a prefabricated concrete panel comprising: a reinforcement frame including at least two longitudinal metal profiles (the longer profiles 32) and at least two transverse profiles (the shorter profiles 32) (see Fig. 5) being connected to define a substantial rectangular shape (“**-shade**”) to define a central cavity for receiving the concrete material therebetween, wherein each of the longitudinal and transverse profiles has substantial C-shaped cross-section with two parallel end winds (32a, 32b or 34a, 34b) joined by an intermediate wind (i.e., 34c), the intermediate wind has a central portion (34c) and two inclined portions (34b) with opposite inclinations, wherein the parallel end winds (32a, 32b; or 34a, 34b) are considered to be the “coplanar portions” and the intermediate wind (34c) is considered to be “non-coplanar portions” as claimed, the profiles include perforations (33) formed on the end winds and perforations (35) formed in the intermediate wind, the perforations (33 or 35) are capable to support suitable inserts such as rings for lifting the panel (notice the lifting insert is not positively claimed), and the protruding portions provided between the inclined portions and the end winds providing undulations which are formed on non-coplanar portion (the intermediate wind) and the regions between the perforations (33 and 35), and the undulations are considered to have a constant height, and have parallel sides being inclined with respect to each other as claimed. Wherein the perforations and the undulations of the reinforcement inherently increase the bonding between the reinforcement frame and the concrete body of a panel when the reinforcement frame is embedded in the concrete material, and the profiles are made of metal and the undulations of the profile would be obvious formed by plastic deformation process as claimed.

The EP reference discloses the reinforcement having all the claimed structural features except that EP does not specifically define the undulations of profiles being formed by a method of plastic deformation. However, the feature “formed by plastic deformation” recites a product-by-process limitation and that the product itself does not depend on the process of making it. It would have been obvious to one ordinary skill in the art to provide the profiles of EP reference to achieve the same final produce as claimed. It would not be expected to impart distinctive structural characteristics to the reinforcement. Applicant could overcome the anticipation rejection by providing evidence that the product-by-process limitation, “formed by plastic deformation,” imparts a distinctive structural characteristic to the claimed reinforcement.

Claim Rejections - 35 USC § 103

3. Claims 38-43, 45, 47-48, 50, 52-56, 59, 61-62, 64, and 66, as better understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Seach (WO 93/12303) in view of Menendez (US Patent No. 6,698,155).

Seach teaches a prefabricated concrete panel comprising a reinforcement including a frame formed by longitudinal profiles reciprocally connected by transverse profiles (see Figs. 4-7), said reinforcement frame being embedded in a concrete body (3) of the panel, the profiles (4) being made of metal, the profile having a substantially C-shaped cross section, the profiles each including two parallel end winds (5) joined by an intermediate wind (6), the intermediate wind (6) having a central portion and two end portions on planes substantially perpendicular to the planes of the end winds (5) and connected by two inclined portions with opposite inclinations (see Figs. 6 and 7), wherein the parallel end winds (5) are considered to be the “coplanar portions” and the intermediate wind (6) is considered to be a “non-coplanar portion” as claimed,

Art Unit: 3637

the profiles (4) may have perforations (8) formed on the intermediate wind and undulations (7) formed on the end winds, wherein the undulations (7) are formed on the coplanar portions and inherently having sides being inclined with respect to each other, and the perforations and the undulations are inherently used to increase the bonding between the reinforcement and the concrete body of the panel. Although Seach does not define the profile having the undulations being formed by a method of plastic deformations of the profile, a metal beam having profile with undulations and curvatures being formed by process of plastic deformations is a well known and old method of manufacture processing. Furthermore, Menendez teaches a reinforcement element (10) having a profile being made of metal, the profile having coplanar portions (18, 20) and non-coplanar portion (16) with undulations (44) being formed by a cold folding process involving plastic deformation of the metal (see col. 6, lines 54-56). It would have been obvious to one ordinary skill in the art at the time the invention was made to provide the elongated element of Barry being made of metal and having a profile with undulations being performed equally well by a method of plastic deformations as taught by Menendez since it is a well know and common process for manufacturing and bending a metal with desirable curvature without easy buckling.

Regard to claims 64, wherein the perforations (8) on the profiles are capable to support inserts such as a ring that can be used for lifting the panel.

4. Claims 44, 46, 49, 58, 60, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent No. 381,000 or Seach (WO 93/12303) in view of Menendez

Art Unit: 3637

'155 as applied to claims 20, 38, 53 above, and further in view of Meyer (US patent No. 5,157,883) and Amore (US patent No. 6,125,603).

The claims are considered to be met by EP reference or Seach in view of Menendez as explained and applied above rejections except that EP reference and Seach and Menendez do not define the profiles having the undulations having very configurations and providing on various locations such as on an edge of the perforations along the profiles as claimed. Meyer teaches an elongated profile having two end winds (32) and an intermediate wind (31), a plurality of perforations (23, 35) formed along the end winds and an intermediate wind of the profile, and undulations (34, and 22) formed between the perforations along the profile, wherein some undulations (34) at the intermediate wind (31) are formed on edges (37) of the perforations (35) and having sides being inclined with each other and interconnected with adjacent sides. Amore further teaches an elongate profile (15) having a plurality of perforations formed along profile, and undulations (17, 21) formed along edges of end winds by suitable manufacturing processes, wherein the undulations (25A) have sides being inclined and may be interconnected with respect to each other (see Fig 3), and the undulations having a height increasing toward the edges of the profile (see Figs. 2 and 5) for stiffening and increasing the rigidity of the elongated profile. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the reinforcement of EP reference or Seach combined with Menendez having undulations formed between perforations along the profiles and having various configurations as claimed as taught by Meyer and Amore as an obvious matter of design choice for sufficiently increasing the rigidity of the profile under loading as to accommodate the construction requirements for various applications.

Response to Arguments

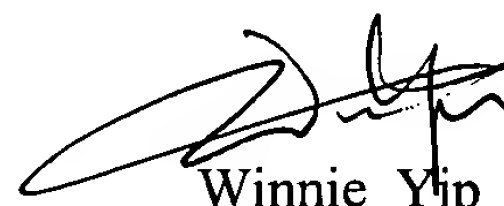
5. Applicant's arguments filed July 7, 200 have been considered but are moot in view of the new ground(s) of rejection.

Inquiry Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Winnie Yip whose telephone number is 703-308-2491. The examiner can normally be reached on M-F (9:30-6:30), Second Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 703-308-2486. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Winnie Yip
Primary Examiner
Art Unit 3637